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on December 7, 2006

Kathy Raymond  
Kathy Raymond

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant :	Peter Krulevitch <i>et al.</i>	Docket No. :	IL-10580
Serial No. :	10/032,257	Art Unit :	1744
Filed :	12/21/2001	Examiner :	William H. Beissner
For :	MICROFABRICATED INSTRUMENT FOR TISSUE BIOPSY AND GENETIC ANALYSIS		

Honorable Commissioner for Patents  
Alexandria, VA 22313-1450

Attention: Board of Patent Appeals and Interferences

Dear Sir:

**APPELLANT'S REPLY BRIEF (37 C.F.R. § 1.192)**

This Reply Brief is submitted in response to the "Examiner's Answer." The Examiner's Answer was mailed November 3, 2006.

One copy of the Reply Brief is being transmitted per 37 C.F.R. § 41.37.

Appellants rely upon Appellants' Brief as responding to issues in the "Examiner's Answer." In addition, Appellants point out (1) that the "Examiner's Answer" improperly applies the Graham v. John Deere Company test of "ascertaining the differences between the prior art and the claims at issue" for determining obviousness under 35 U.S.C. §103 and (2) fails to give weight to the "consisting of" preamble in Appellants' claims on appeal.

**Improper Application of Graham v. John Deere Company Test (Ascertaining Differences Between Prior Art and Claims) -**

The Examiner's Answer on page 4 lines 4-6 improperly characterizes the differences between the Krulevitch et al reference device as: "the instant claims differ by reciting that the body of the device includes a PCR chamber with a heating unit directly connected to the specimen treatment and analysis chamber."

Appellants' claims on appeal define specific structural elements and the relation of the structural elements including the following structural elements and the relationship of those structural elements:

a PCR reaction chamber located in said silicon substrate and said glass substrate directly abutting and connected directly to said specimen treatment and analysis chamber, said PCR reaction chamber constructed to receive the tissue from said specimen treatment and analysis chamber, (Claim 1)

a PCR reaction chamber in said silicon substrate and said glass substrate directly abutting and connected directly to said specimen treatment and analysis chamber, said PCR reaction chamber receiving the tissue from said specimen treatment and analysis chamber, (Claim 16)

a heating unit in said body adjacent said PCR reaction chamber. (Claims 1 and 16)

These structural elements and relation of the structural elements are not disclosed by the Krulevitch et al reference. In Appellants' claims the PCR reaction chamber is directly abutting and connected directly to the specimen treatment and analysis chamber and the heating unit is adjacent the PCR reaction chamber. This is



**"Consisting of" Preamble** – The Examiner's Answer fails to give weight to the "consisting of" preamble in Appellants' claims.

A "consisting of" preamble is a closed term. This is contrasted with a "comprising" preamble which is what is known as an open term.

In effect, comprising is a shorthand way of saying "including the following elements but not excluding others." For example, a combination "comprising A + B" covers the combination A + B + C and may include other elements.

On the other hand a "consisting of" preamble is a closed term and in effect is a shorthand way of saying "the following elements and no other elements." A combination "consisting of A + B" covers only A + B and does not include other elements. A combination "consisting of A + B" does not cover the combination A + B + C.

The Examiner's Answer combines the Krulevitch et al and Pourahmadi et al references which produces a hypothetical device with an extensive structure and includes structure in addition to the structure "consisting of" the elements specified in Appellants' claims 1-5 and 16-19 on appeal. The Pourahmadi et al reference device includes the following structure in addition to the structure "consisting of" the elements specified in Appellants' claims 1-5 and 16-19 on appeal.

channel 105,  
mixing chamber 107,  
lysing chamber 119,  
flow-through component 122,  
storage chamber 127,  
waste chamber 139,  
channel 135, and  
channel 136.

The Examiner's Answer's combination of the Krulevitch et al reference and the Pourahmadi et al reference contains extensive structure in addition to the structure

"consisting of" the elements specified in Appellants' claims 1-5 and 16-19. The rejection of Appellants' claims 1-5 and 16-19 on appeal should be reversed.

Summary

The Examiner's Answer improperly applies the Graham v. John Deere Company test and its combination of the Krulevitch et al reference and the Pourahmadi et al reference contains extensive structure in addition to the structure "consisting of" the elements specified in Appellants' claims 1-5 and 16-19. The rejection of Appellants' claims 1-5 and 16-19 on appeal should be reversed.

It is respectfully requested that Appellants' claims 1-10 and 13 on appeal be allowed.

Respectfully submitted,

By: \_\_\_\_\_

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